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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,932	06/06/2000	Xin Qiu	18926-002310US	8876

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EXAMINER

SON, LINH L D

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/587,932

Applicant(s)

QIU ET AL.

Examiner

Linh LD Son

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4,6-9,14-17 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-9,14-17 and 23-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office Action is written in responding to the RCE dated 05/19/05.
2. Applicant requested NOT to enter the amendment submitted on 12/29/04.
3. Claims 5, 10-13, and 18-22 were canceled.
4. Claims 1-4, 6-9, 14-17, and 23-26 are pending.

### ***Drawings***

5. The informal drawings are not of sufficient quality to permit examination. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Applicant is given a TWO MONTH time period to submit new drawings in compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a). Failure to timely submit replacement-drawing sheets will result in ABANDONMENT of the application.

***Claim Objections***

6. Claim 7 is objected to because of the following informalities: mistyped. Applicant needs to check all amended claims for similar mistake. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-4, 7-9, 14-17, and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan, US Patent No. 6609202B1 (Cited in Office Action dated 12/15/04).**

9. As per claims 1 and 24, Chan discloses "A method of providing data, the method comprising: storing a first set of encryption data associated with a first data stream wherein the first data stream includes a first number of services; encrypting the first data stream having a first-level-of-encryption; sending the first data stream to a destination device for decryption" in (Col 13 lines 10-15 and Col 10 lines 29-40); "storing a second set of encryption data associated with a second data stream wherein the second data stream includes a second number of services that is different from the first number of services" in (Col 13 lines 17-21 and Col 11 lines 62-67); "encrypting the second data

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stream having a second-level-of-encryption, the first-level-of-encryption being different from the second-level-of-encryption" in (Col 6 lines 53-64); "utilizing a common memory to encrypt said the first data stream at first-level of encryption and to encrypt the second data stream at the second-level-of encryption; and sending the second data stream to the destination device for decryption" in (Col 13 lines 10-21, Col 4 lines 20-35, and Col 11 lines 37-43 and lines 62-67). However, Chan is not explicitly disclosed the second data stream includes a second number of services. Nevertheless, Chan discloses a method of encrypting "a set of digital data" in (Col 13 lines 10-19).

Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to interpret the "a set of digital data" can be a set of digital data of many services. The set of digital data that Chan discloses are "contain data relating to Video, text, audio, or their combination" in (Col 4 lines 5-35). Further, the system does include a broadcast station to distribute the plurality of services.

10. As per claim 2, Chan discloses "The method of claim 1 wherein the first set of encryption data comprises at least one encryption key" in (Col 2 lines 5-10).3,

11. As per claim 3, Chan discloses "The method of claim 1 wherein the destination device comprises a set-top box" in (Col 4 lines 5-10 and lines 45-52).

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12. As per claim 4, Chan discloses "The method of claim 3 further comprising storing a plurality of decryption algorithms at the set-top box" in (Col 4 lines 35-45, and Col 10 lines 29-40).

13. As per claim 7, Chan discloses "The method of claim 1 further comprising: decrypting the first data stream at the set-top box; and decrypting the second data stream at the set-top box" in (Col 10 lines 29-40).

14. As per claim 8, Chan discloses "The method of claim 1 and further comprising storing a portion of the first set of encryption data in a RAM" in (Col 10 lines 29-40).

15. As per claim 9, Chan discloses "The method of claim 1 and further comprising storing a portion of the first set of encryption data in a register of a microprocessor" in (Col 10 lines 29-40).

16. As per claim 14, Claim 1 rejection basis is incorporated. Further Chan discloses "A method of allocating resources comprising: allocating a memory with a first set of decryption data corresponding to a first level-of-encryption; receiving via from an originating source a first data stream having the first level-of-encryption and a first number of services; " in (Col 13 lines 1-20 and Col 4 lines 25-29). However, "the reconfiguration circuit operable to reconfigure said memory to accommodate the new set of data for encryption" is not specifically explained in. Nevertheless, "there are steps

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of encrypting different sets of data with different levels of encryption " in (Cited above).

Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to realize that the reconfiguration circuit operable to reconfigure said memory in in order to encrypt different set of data efficiently and correctly.

17. As per claim 15, Chan discloses "The method of claim 14 and further comprising detecting that the second-level-of-encryption of the second data stream is different from the first-level-of-encryption of the first data stream" " in (Col 11 lines 15-25 and lines 37-45, and Col 10 lines 29-40). Since each data stream have different predetermined security, the encryption circuit will automatically know which level of encryption to use.

18. As per claims 16 and 17, Chan discloses "the method as described in claim 14 wherein said allocating a memory with a first set of decryption data corresponding to said first-level-of-encryption comprises storing decryption key data; said memory with a second set of decryption data corresponding to said second-level-of encryption comprises storing decryption key data" in '220 (Col 10 lines 29-40 and Claim 14's rejection basis).

19. As per claim 18, Chan discloses "the method as described in claim 14 wherein said first data stream is comprised of a plurality of different services, each service encrypted at the same level of encryption" in (Col 11 lines 37-45).

20. As per claim 23, Chan discloses "A method of providing encrypted data, method comprising: providing a first set of services comprised of a first number of services; encrypting at least one of services from first set of services at a first level-of-encryption; combining the first set of services into a first data stream; transmitting said first data stream" in (Col 13 lines 10-15, and Col 10 lines 29-40); "storing a first set of decryption keys associated with said first-level-of-encryption, said first set of keys corresponding to the decryption algorithm for the first-level-of-encryption" in (Col 10 lines 29-40); "providing a second set of services comprised of a second number services different from the first number of services; encrypting at least one of services from second set of services with an encryption algorithm different from first-level-of-encryption; combining the second set of services into a second data stream; transmitting said second data stream; storing a second set of decryption keys associated with second-level-of-encryption in integrated circuit in set-top box" in (Col 13 lines 15-20, Col 10 lines 29-40, and Col 11 lines 37-67).

However, the set-top-box is not directly claimed in. Nevertheless, the client secure processor in can also be interpreted as a set-top-box. Therefore, it would have been obvious for one having ordinary skill in the art to modify the invention to utilize the set-to-box to provide a user-friendly environment for customer to receive digital data sent from the providers.



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21. As per claim 25, Chan discloses "The method of claim 24 wherein the first set of decryption data comprises at least one decryption key" in (Col 11 lines 15-25).

22. As per claim 26, Chan discloses "The method of claim 24 wherein the second set of decryption data comprises at least one decryption key" in (Col 11 lines 15-25).

**23. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan, in view of Matthews, JR. et al, US Publication No. 20030005292A1, hereinafter "Matthews" (Cited in Office Action dated 12/15/04).**

24. As per claim 6, Chan discloses "The method in claim 1 wherein said first-level of encryption utilizes the Data Encryption Standard" in (Col 6 lines 36-37). The second-level-of encryption in (Col 11 lines 37-45 and lines 63-67). However, " said second-level-of encryption utilizes an encryption algorithm different from said Data Encryption Standard" is not taught specifically. Nevertheless, the implementation of different encryption algorithm other than DES and concurrently with DES to protect the data is well known in the distribution of digital data domain and taught in '292 (Para 0019). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify '202 invention to implement different encryption algorithm in the second-level of security other than DES to best protect the data stream.

***Response to Arguments***

25. Applicant's arguments filed 05/19/05 have been fully considered but they are not persuasive.

26. As per remark on page 8 3<sup>rd</sup> paragraph, Applicant relies on one of the embodiments of Chan's invention which discloses "the signal can be carried on a CD-ROM" to make an argument that Chan does not provide number of services. In Col 4 lines 5-35, Chan clearly discloses number of services broadcast from the central station to user terminal or computer. This evidence is clearly supporting that the "set of digital data" cited in Col 13 lines 10-19 is inclusive of the services listed in Col 4 lines 5-35.

27. Therefore, Chan's invention is clearly discloses the claimed invention as rejected above.


28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh LD Son whose telephone number is 571-272-3856. The examiner can normally be reached on 9-6 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Linh LD Son  
Examiner  
Art Unit 2135



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